

Amendments to the Claims:

This listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A print control apparatus that controls a printing unit, which applies multiple color inks on a printing medium to print a color image, said print control apparatus comprising:
 - an image data input module that receives an input of color image data;
 - a hue storage module that stores in advance a predetermined range of hues for which saturation is to be enhanced;
 - a saturation enhancement module that ~~enhances saturation of~~ converts the input color image data into image data expressed in a color system that can independently handle the saturation and, with regard to in the predetermined range of hues of the image data, enhances the saturation of the image data in such a way that the gradation of saturation of the original image data is maintained;
 - a conversion module that converts the image data with the enhanced saturation into image data for printing;
 - an ink application density specification module that specifies an application density of ink to be applied on the printing medium with regard to each of the multiple color inks, based on the color image data with that has the enhanced saturation in the predetermined range of hues and has been converted into image data for printing; and
 - a control signal output module that outputs the specified application density of each color ink as a control signal to said printing unit.
2. (Original) A print control apparatus in accordance with claim 1, wherein said hue storage module stores hues of blue to green as the predetermined range of hues.
3. (Original) A print control apparatus in accordance with claim 1, said print control apparatus further comprising:
 - an expression format conversion module that converts the color image data into data of another expression format using saturation, hue, and lightness,

wherein said saturation enhancement module receives the data converted to the another expression format and changes data representing the saturation in the predetermined range of hues to data representing higher saturation.

4. (Original) A print control apparatus in accordance with claim 1, wherein said saturation enhancement module enhances the saturation by a greater degree with an increase in saturation of the color image data in the predetermined range of hues.

5. (Original) A print control apparatus in accordance with claim 1, wherein said saturation enhancement module comprises:

an image data conversion module that converts the color image data into a wide gamut color image data that is capable of expressing higher saturation than saturation expressible by the color image data,

said saturation enhancement module enhancing the saturation after the conversion of the input color image data into the wide gamut color image data.

6. (Original) A print control apparatus in accordance with claim 1, wherein said saturation enhancement module comprises:

an enhancement degree storage module that stores in advance a plurality of different degrees of enhancement for saturation of the color image data; and

an enhancement degree selection module that selects one enhancement degree among the plurality of different enhancement degrees stored,

said saturation enhancement module enhancing the saturation of the color image data according to the selected enhancement degree.

7. (Original) A print control apparatus in accordance with claim 1, said print control apparatus comprising:

an enhancement execution setting module that sets in advance execution or non-execution of enhancement for the saturation of the color image data; and

a saturation enhancement prohibition module that prohibits said saturation enhancement module from enhancing the saturation and supplies the color image data received by said image data input module to said ink application density specification module, when the setting represents non-execution of enhancement for the saturation of the color image data,

wherein said ink application density specification module specifies the application density of each color ink, based on the supplied color image data.

8. (Currently Amended) A print control apparatus that controls a printing unit, which applies multiple color inks on a printing medium to print a color image, said print control apparatus comprising:

a conversion table that stores a mapping of color image data to converted image data, which is obtained through predetermined data conversion of the color image data;

an image data input module that receives an input of color image data;

an image data conversion module that refers to the conversion table and converts the input color image data into the converted image data, the converted image data being expressed in a color system that can independently handle the saturation;

a conversion module that converts the image data with the enhanced saturation into image data for printing;

an ink application density specification module that specifies an application density of ink to be applied on the printing medium with regard to each of the multiple color inks, based on the color image data ~~with~~ that has the enhanced saturation in the predetermined range of hues and has been converted into image data for printing; and

a control signal output module that outputs the specified application density of each color ink as a control signal to said printing unit,

wherein the conversion table stores the image data with the enhanced saturation in the predetermined range of hues as the converted image data and wherein the converted image data representing the enhanced saturation maintains the gradation of saturation of the original image with regard to the predetermined range of hues.

9. (Original) A print control apparatus in accordance with claim 8, wherein the conversion table stores a mapping of color image data in a first color system to color image data in a second color system.

10. (Currently Amended) A printing apparatus that applies multiple color inks on a printing medium to print a color image, said printing apparatus comprising:

a printing unit that applies the multiple color inks on the printing medium;

an image data input module that receives an input of color image data;

a hue storage module that stores in advance a predetermined range of hues for which saturation is to be enhanced;

a saturation enhancement module that ~~enhances saturation of~~ converts the input color image data into image data expressed in a color system that can independently handle the saturation and, with regard to in the predetermined range of hues of the image data, enhances the saturation of the image data in such a way that the gradation of saturation of the original image data is maintained;

a conversion module that converts the image data with the enhanced saturation into image data for printing;

an ink application density specification module that specifies an application density of ink to be applied on the printing medium with regard to each of the multiple color inks, based on the color image data ~~with that has~~ the enhanced saturation in the predetermined range of hues and has been converted into image data for printing; and

a control signal output module that outputs the specified application density of each color ink as a control signal to said printing unit.

11. (Currently Amended) A print control method of controlling a printing unit, which applies multiple color inks on a printing medium to print a color image, said print control method comprising the steps of:

storing a predetermined range of hues for which saturation is to be enhanced;

receiving an input of color image data; and

converting ~~enhancing~~ saturation of the input color image data into image data expressed in a color system that can independently handle the saturation;

enhancing the saturation of the image data in such a way that the gradation of saturation of the original image data is maintained with regards to in the predetermined range of hues;

converting the image data with the enhanced saturation into image data for printing;

specifying an application density of ink to be applied on the printing medium with regard to each of the multiple color inks, based on the color image data ~~with that has~~ the enhanced saturation in the predetermined range of hues and has been converted into image data for printing; and

outputting the specified application density of each color ink as a control signal to said printing unit.

12. (Original) A print control method in accordance with claim 11, wherein the saturation in

the predetermined range of hues is enhanced after conversion of the input color image data into a data format that is capable of expressing higher saturation than saturation expressible by the input color image data.

13. (Currently Amended) A computer program product ~~that, stored on a machine-readable medium, for actualizes a print control method of controlling a printing unit, which applies multiple color inks on a printing medium to print a color image, comprising instructions operable to cause a computer to said computer program product comprising:~~

~~a recording medium in which data is recorded in a computer readable manner; and~~

~~a computer program recorded in said recording medium;~~

~~wherein said computer program comprising the program codes of:~~

~~storing store a predetermined range of hues for which saturation of a color image is to be enhanced;~~

~~receiving receive an input of color image data; and~~

~~converting convert the input color image data into image data expressed in a color system that can independently handle the saturation;~~

~~enhance the saturation of the image data in such a way that the gradation of saturation of the original image is maintained with regard to, so as to enhance saturation of the color image data in the predetermined range of hues of the image data;~~

~~convert the image data with the enhanced saturation into image data for printing;~~

~~specifying specify an application density of ink to be applied on the printing medium with regard to each of the multiple color inks, based on the color image data with that has the enhanced saturation in the predetermined range of hues and has been converted into image data for printing; and~~

~~outputting output the specified application density of each color ink as a control signal to said printing unit.~~

14. (Currently Amended) A computer for program that causes a computer to attain a print control method of controlling a printing unit, which applies multiple color inks on a printing medium to print a color image, said computer being configured to program comprising the program codes of:

storing store a predetermined range of hues for which saturation of a color image is to be enhanced;

receiving receive an input of color image data; and

~~converting~~ convert the input color image data into image data expressed in a color system that can independently handle the saturation;

enhance the saturation of the image data in such a way that the gradation of saturation of the original image is maintained with regard to, ~~so as to enhance saturation of the color image data in the predetermined range of hues of the image data;~~

convert the image data with the enhanced saturation into image data for printing;

~~specifying~~ specify an application density of ink to be applied on the printing medium with regard to each of the multiple color inks, based on the color image data ~~with~~ that has the enhanced saturation in the predetermined range of hues and has been converted into image data for printing; and

~~outputting~~ output the specified application density of each color ink as a control signal to said printing unit.

15. (Currently Amended) An image processing apparatus that receives an input of color image data, makes the input color image data subject to a predetermined series of image processing, and outputs the processed color image data to outside to print a resulting image, said image processing apparatus comprising:

an image data input module that receives the input of the color image data;

a hue storage module that stores in advance a specified hue for which saturation is to be enhanced;

a saturation enhancement module that enhances saturation of the specific hue of the color image data according to a difference between saturation expressible by the color image data and saturation printable with a color printer, which prints color images, with regard to the specific hue such that the gradation of saturation of the original image data is maintained; and

an image data output module that outputs the color image data with the enhanced saturation.

16. (New) A print control apparatus in accordance with claim 1, wherein said image data with the enhanced saturation is expressed in an L*A*B* color system.

17. (New) A print control apparatus in accordance with claim 1, wherein said color image has been recorded using an image recording device such as a scanner or a digital camera.

18. (New) A print control apparatus in accordance with claim 1, wherein there is a linear dependency between the gradation of the saturation in said original image and the gradation of the saturation in said image with enhanced saturation.